

 $\begin{array}{l} {\rm KTH~Stockholm} \\ {\rm EECS} :: {\rm CST} \end{array}$

Introduction to Visualization and Computer Graphics

DH2320/DD2258, Spring 2018

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Homework assignment No. 02 Due February 2, 2018

Task 2.1: Programming: Transformations

10 P + 5 BP

This is the first exercise of several in which you will be using Inviwo - an overview and the instructions for installing it can be found on the course canvas page. When you run Inviwo and open $File \to Example\ Workspaces \to DH2320Lab1 \to Setup.inv$ you should see a window like in Fig. 1. The XYZ global coordinate system is symbolized by the RGB axes in the ball in that order.

- (a) The initial configuration is shown in Fig. 1. Transform all of the dice by modifying the parameters of the World Transform Mesh processors so that the configuration shown in Fig. 2 is achieved. You may add additional transformation processors if necessary.
- (b) (Bonus Points: +5) Transform the 6th die to obtain the configuration shown in Fig. 3

Task 2.2: Animation

Task 2.1(a) Modify the code of the processor Cube Animator (in inviwo-module-dd2320lab1) to animate the 6th cube, so that it rotates around the other cubes and at the same time performs a swirly motion as shown in the video animation_exercise.mp4.

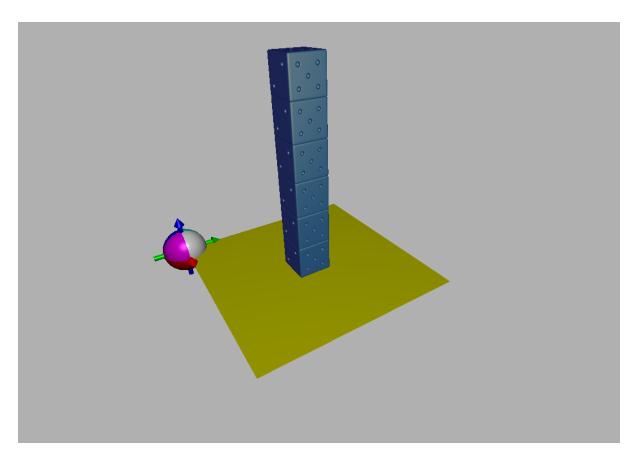


Figure 1: Initial Framework

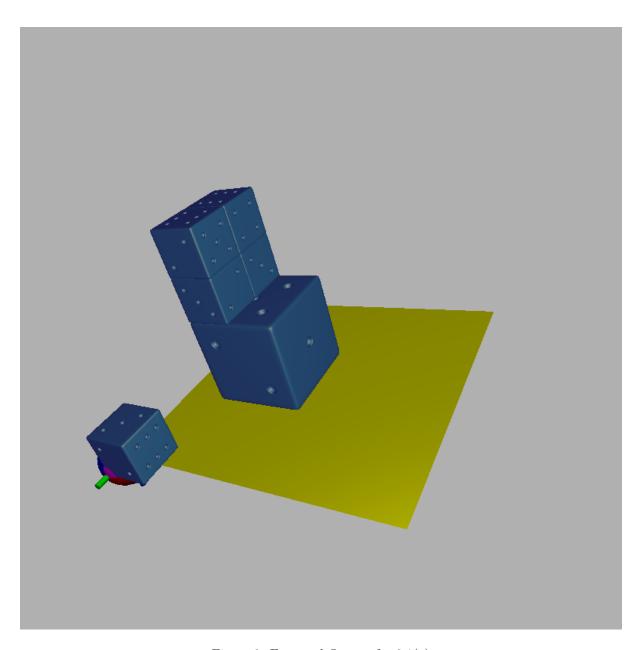


Figure 2: Expected Output for 2.1(a)

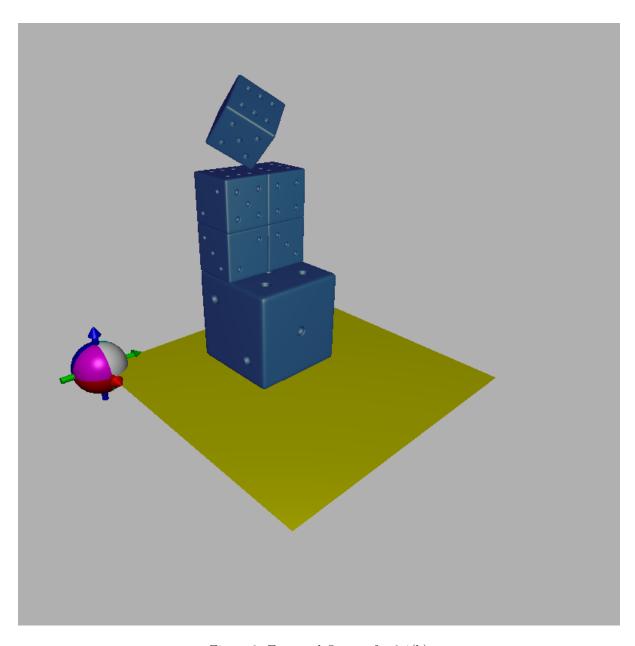


Figure 3: Expected Output for 2.1(b)